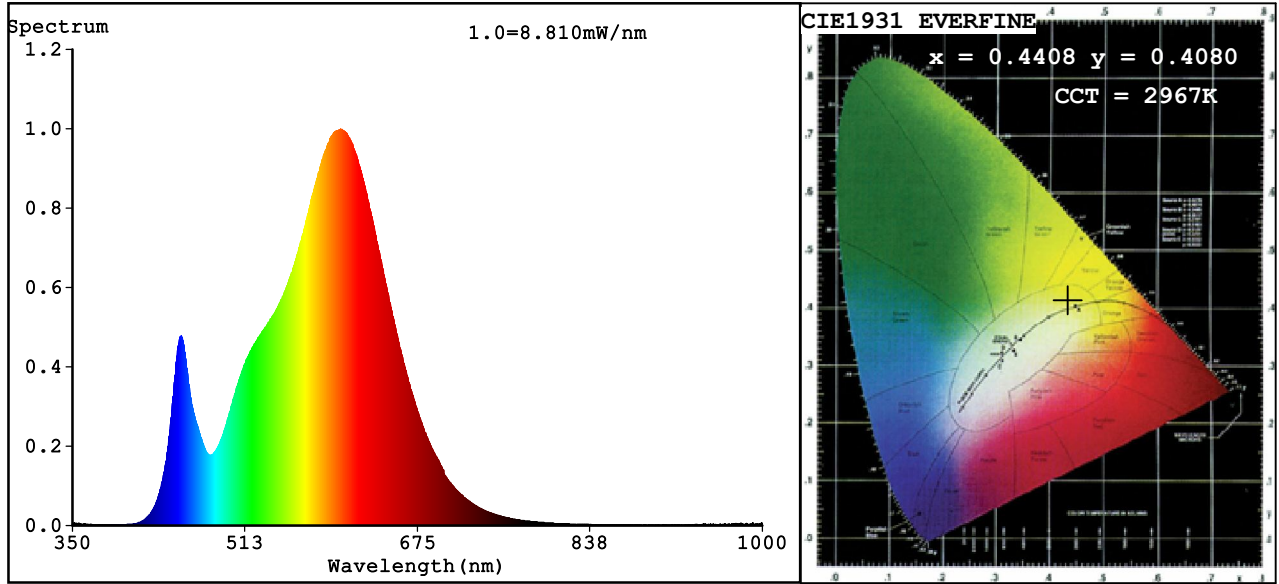


Spectrum Test Report



Color Parameters:

Chromaticity Coordinate: $x=0.4408$ $y=0.4080$ $u'=0.2514$ $v'=0.5235$
 CCT=2967K(Duv=0.0010) Dominant WL:Ld =582.6nm Purity=54.8%
 Ratio:R=22.9% G=74.7% B=2.4%;;Peak WL:Lp=602.8nm FWHM=122.3nm
 Render Index:Ra=81.1
 R1 =79 R2 =90 R3 =96 R4 =79 R5 =79 R6 =88 R7 =82
 R8 =55 R9 =0 R10=78 R11=78 R12=69 R13=82 R14=98 R15=71

Photo Parameters:

Flux = 423.7 lm Eff. : 108.70 lm/W Fe = 1.267 W

Electrical parameters:

V = 229.94 V I = 0.03365 A P = 3.898 W PF = 0.5037

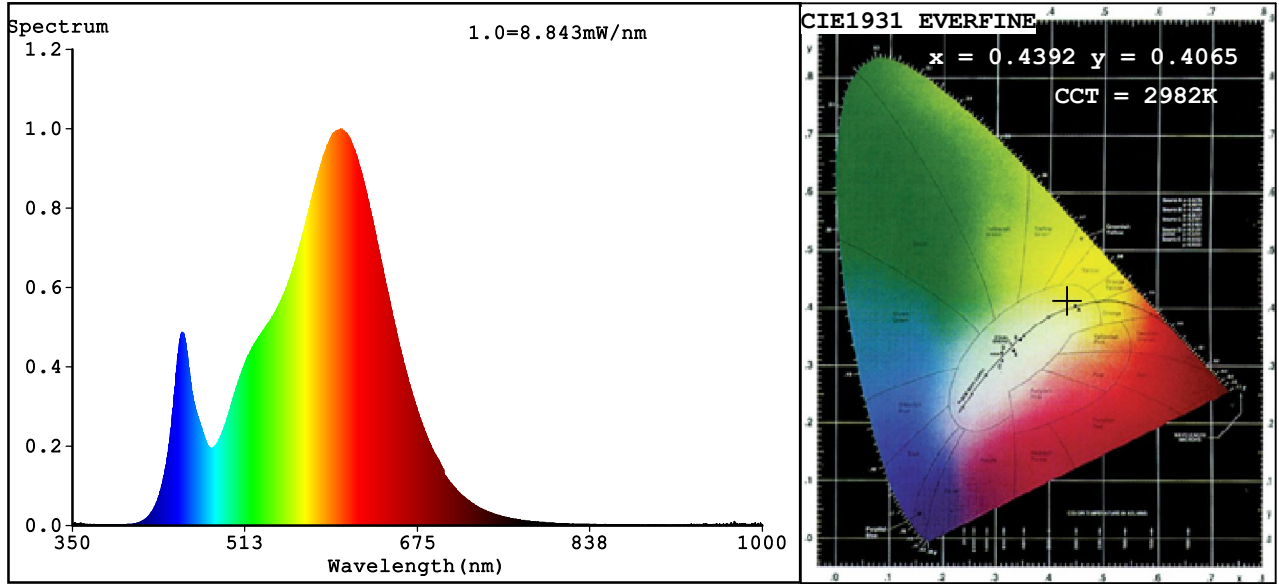
WHITE:ANSI_3000K

Status: Integral T = 103 ms Ip = 45790 (70%)

Model:LED GLOBE P45 FILAMENT/4W
 Tester:Petya Marinova
 Temperature:25.3Deg
 Manufacturer:ELMARK

Number:99LED665
 Date:2018-03-23 16:24
 Humidity:65.0%
 Remarks:017V055B_4288

Spectrum Test Report



Color Parameters:

Chromaticity Coordinate: $x=0.4392$ $y=0.4065$ $u'=0.2510$ $v'=0.5227$
 CCT=2982K(Duv=0.0007) Dominant WL:Ld =582.7nm Purity=53.8%
 Ratio:R=22.8% G=74.6% B=2.6%;; Peak WL:Lp=602.8nm FWHM=122.2nm
 Render Index:Ra=81.5
 R1 =80 R2 =91 R3 =95 R4 =79 R5 =80 R6 =89 R7 =81
 R8 =56 R9 =0 R10=80 R11=78 R12=70 R13=83 R14=98 R15=72

Photo Parameters:

Flux = 425.8 lm Eff. : 106.99 lm/W Fe = 1.278 W

Electrical parameters:

V = 229.95 V I = 0.03422 A P = 3.980 W PF = 0.5057

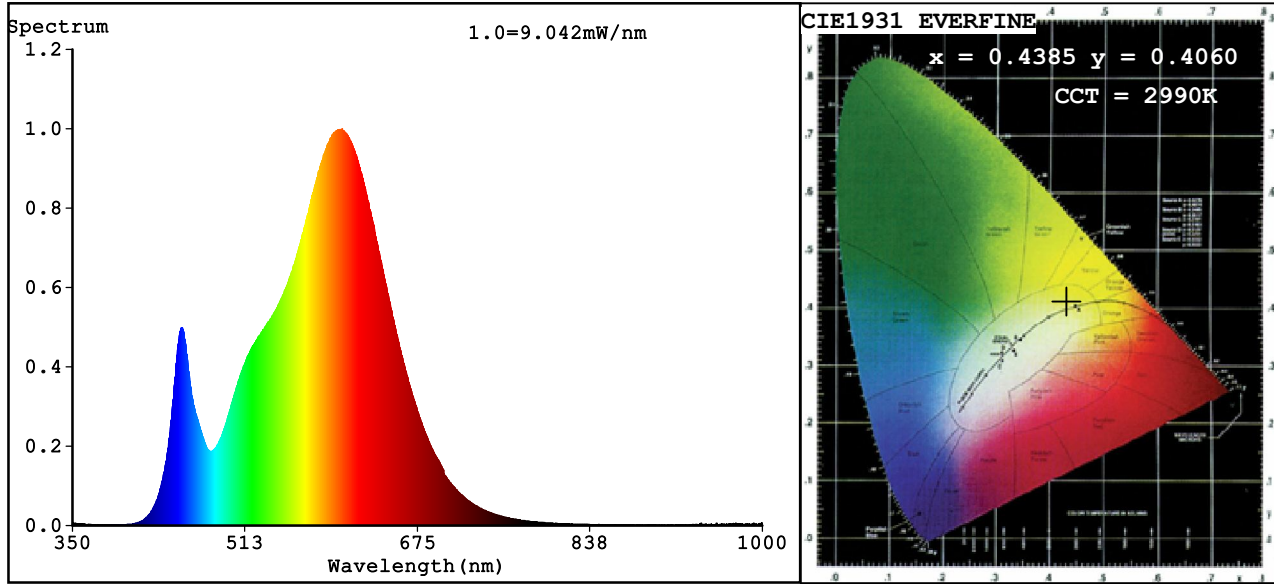
WHITE:ANSI_3000K

Status: Integral T = 103 ms Ip = 45938 (70%)

Model:LED GLOBE P45 FILAMENT/4W
 Tester:Petya Marinova
 Temperature:25.3Deg
 Manufacturer:ELMARK

Number:99LED665
 Date:2018-03-23 16:28
 Humidity:65.0%
 Remarks:017V055B_4288

Spectrum Test Report



Color Parameters:

Chromaticity Coordinate: $x=0.4385$ $y=0.4060$ / $u'=0.2508$ $v'=0.5224$
 CCT=2990K (Duv=0.0005) Dominant WL:Ld =582.7nm Purity=53.5%
 Ratio:R=22.8% G=74.7% B=2.5%;; Peak WL:Lp=604.1nm FWHM=123.0nm
 Render Index:Ra=81.3
 R1 =79 R2 =91 R3 =96 R4 =79 R5 =80 R6 =89 R7 =81
 R8 =56 R9 =0 R10=79 R11=78 R12=70 R13=82 R14=98 R15=71

Photo Parameters:

Flux = 436.1 lm Eff. : 108.58 lm/W Fe = 1.308 W

Electrical parameters:

V = 229.95 V I = 0.03440 A P = 4.016 W PF = 0.5077

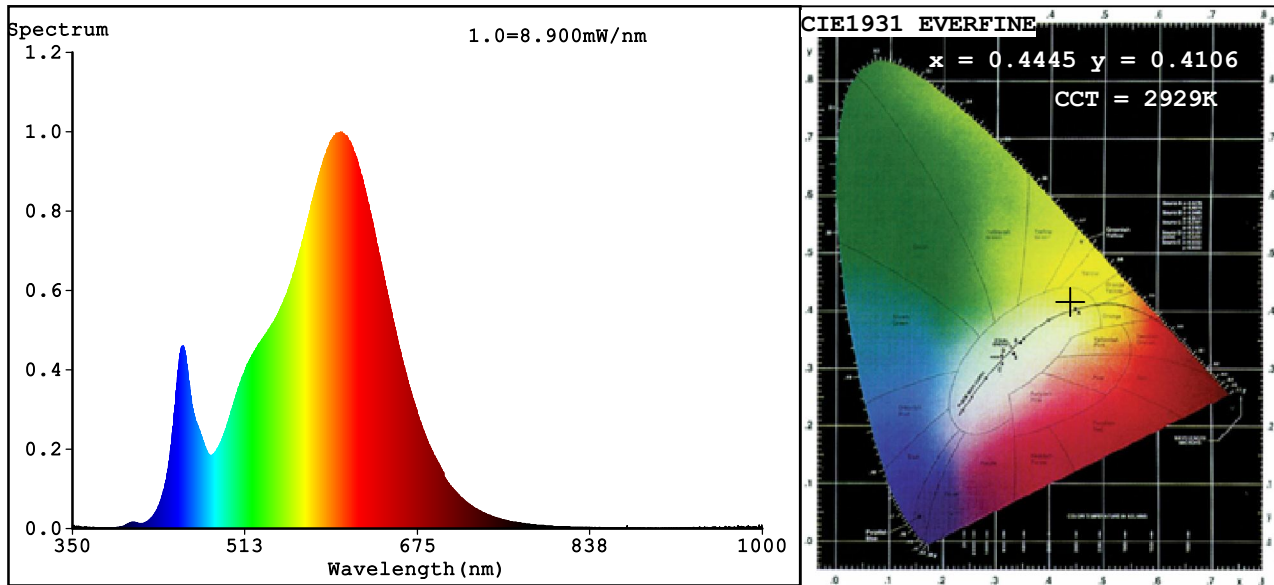
WHITE:ANSI_3000K

Status: Integral T = 103 ms Ip = 46933 (72%)

Model:LED GLOBE P45 FILAMENT/4W
 Tester:Petya Marinova
 Temperature:25.3Deg
 Manufacturer:ELMARK

Number:99LED665
 Date:2018-03-23 16:29
 Humidity:65.0%
 Remarks:017V055B_4288

Spectrum Test Report



Color Parameters:

Chromaticity Coordinate: $x=0.4445$ $y=0.4106$ $u'=0.2526$ $v'=0.5251$

CCT=2929K (Duv=0.0016) Dominant WL:Ld =582.6nm Purity=56.7%

Ratio:R=23.1% G=74.4% B=2.5%;; Peak WL:Lp=602.5nm FWHM=119.8nm

Render Index:Ra=81.0

R1 =79	R2 =91	R3 =96	R4 =78	R5 =79	R6 =89	R7 =81	
R8 =55	R9 =0	R10=79	R11=78	R12=69	R13=82	R14=98	R15=71

Photo Parameters:

Flux = 424.3 lm Eff. : 108.44 lm/W Fe = 1.269 W

Electrical parameters:

V = 229.96 V I = 0.03375 A P = 3.912 W PF = 0.5040

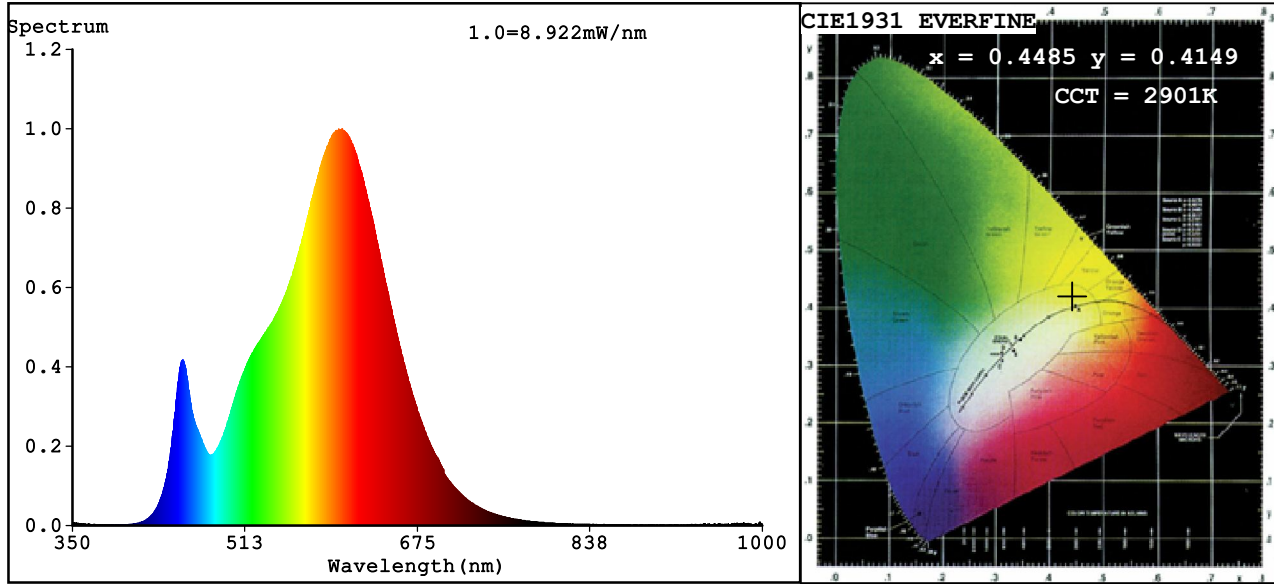
WHITE:ANSI_3000K

Status: Integral T = 103 ms Ip = 46196 (70%)

Model:LED GLOBE P45 FILAMENT/4W
Tester:Petya Marinova
Temperature:25.3Deg
Manufacturer:ELMARK

Number:99LED665
Date:2018-03-23 16:31
Humidity:65.0%
Remarks:017V055B_4288

Spectrum Test Report



Color Parameters:

Chromaticity Coordinate: $x=0.4485$ $y=0.4149$ $u'=0.2533$ $v'=0.5273$

CCT=2901K(Duv=0.0028) Dominant WL:Ld =582.4nm Purity=59.2%

Ratio:R=23.1% G=74.5% B=2.4%;;Peak WL:Lp=600.8nm FWHM=119.3nm

Render Index:Ra=80.6

R1 =78 R2 =90 R3 =96 R4 =78 R5 =79 R6 =88 R7 =81

R8 =54 R9 =0 R10=78 R11=77 R12=68 R13=81 R14=98 R15=70

Photo Parameters:

Flux = 424.3 lm Eff. : 107.01 lm/W Fe = 1.260 W

Electrical parameters:

V = 229.95 V I = 0.03442 A P = 3.965 W PF = 0.5010

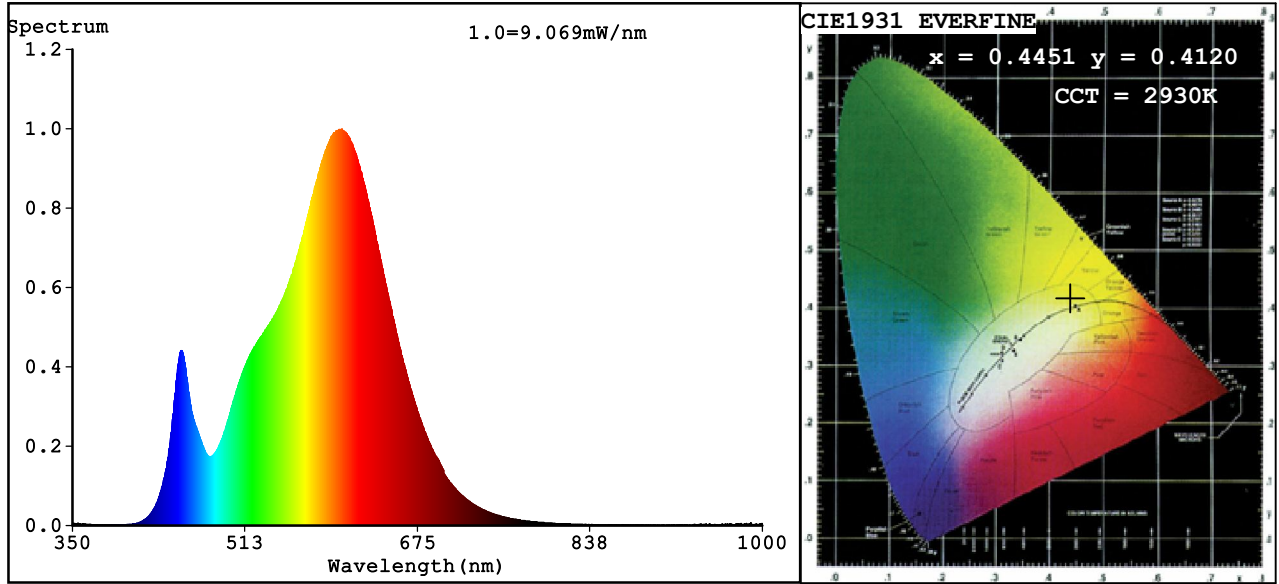
WHITE:ANSI_3000K

Status: Integral T = 103 ms Ip = 46372 (71%)

Model:LED GLOBE P45 FILAMENT/4W
Tester:Petya Marinova
Temperature:25.3Deg
Manufacturer:ELMARK

Number:99LED665
Date:2018-03-23 16:34
Humidity:65.0%
Remarks:017V055B_4288

Spectrum Test Report



Color Parameters:

Chromaticity Coordinate: $x=0.4451$ $y=0.4120$ $u'=0.2524$ $v'=0.5257$

CCT=2930K(Duv=0.0020) Dominant WL:Ld =582.5nm Purity=57.3%

Ratio:R=23.0% G=74.6% B=2.4%;;Peak WL:Lp=603.8nm FWHM=120.4nm

Render Index:Ra=80.8

R1 =79	R2 =90	R3 =96	R4 =78	R5 =79	R6 =88	R7 =82	
R8 =55	R9 =0	R10=77	R11=78	R12=69	R13=81	R14=98	R15=70

Photo Parameters:

Flux = 433.7 lm Eff. : 110.02 lm/W Fe = 1.291 W

Electrical parameters:

V = 229.98 V I = 0.03397 A P = 3.942 W PF = 0.5045

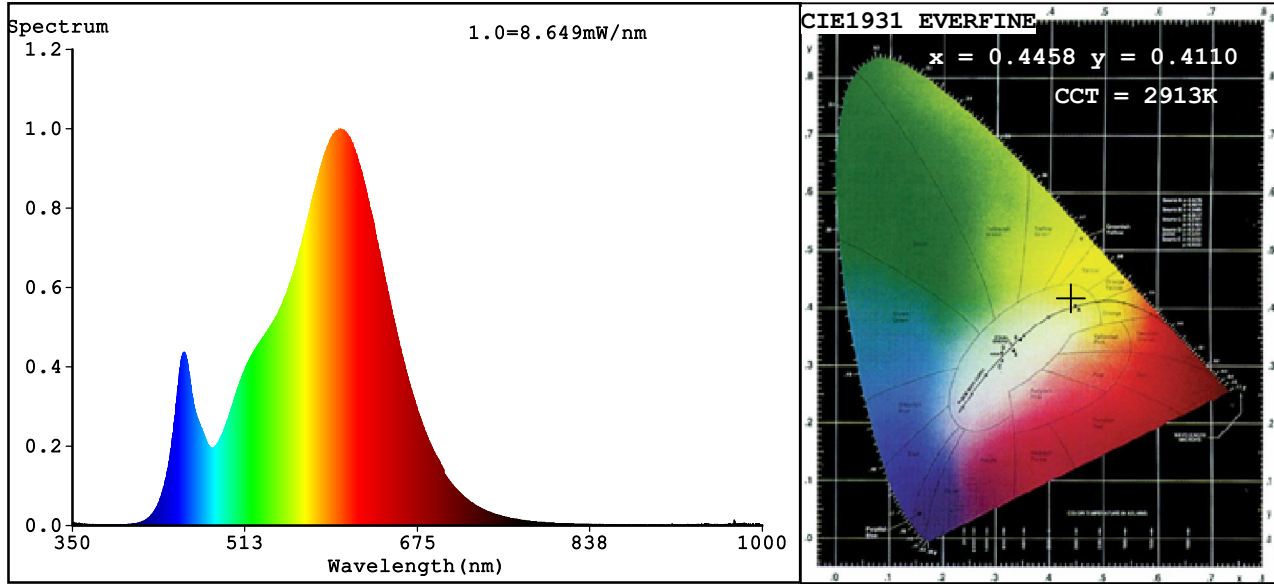
WHITE:ANSI_3000K

Status: Integral T = 103 ms Ip = 47200 (72%)

Model:LED GLOBE P45 FILAMENT/4W
Tester:Petya Marinova
Temperature:25.3Deg
Manufacturer:ELMARK

Number:99LED665
Date:2018-03-23 16:35
Humidity:65.0%
Remarks:017V055B_4288

Spectrum Test Report



Color Parameters:

Chromaticity Coordinate: $x=0.4458$ $y=0.4110$ / $u'=0.2532$ $v'=0.5254$

CCT=2913K (Duv=0.0016) Dominant WL:Ld =582.7nm Purity=57.2%

Ratio:R=23.2% G=74.3% B=2.5%; Peak WL:Lp=600.8nm FWHM=118.4nm

Render Index:Ra=81.1

R1 =79	R2 =91	R3 =95	R4 =78	R5 =80	R6 =90	R7 =81	
R8 =55	R9 =0	R10=80	R11=77	R12=70	R13=82	R14=98	R15=71

Photo Parameters:

Flux = 410.5 lm Eff. : 105.04 lm/W Fe = 1.229 W

Electrical parameters:

V = 229.98 V I = 0.03316 A P = 3.908 W PF = 0.5124

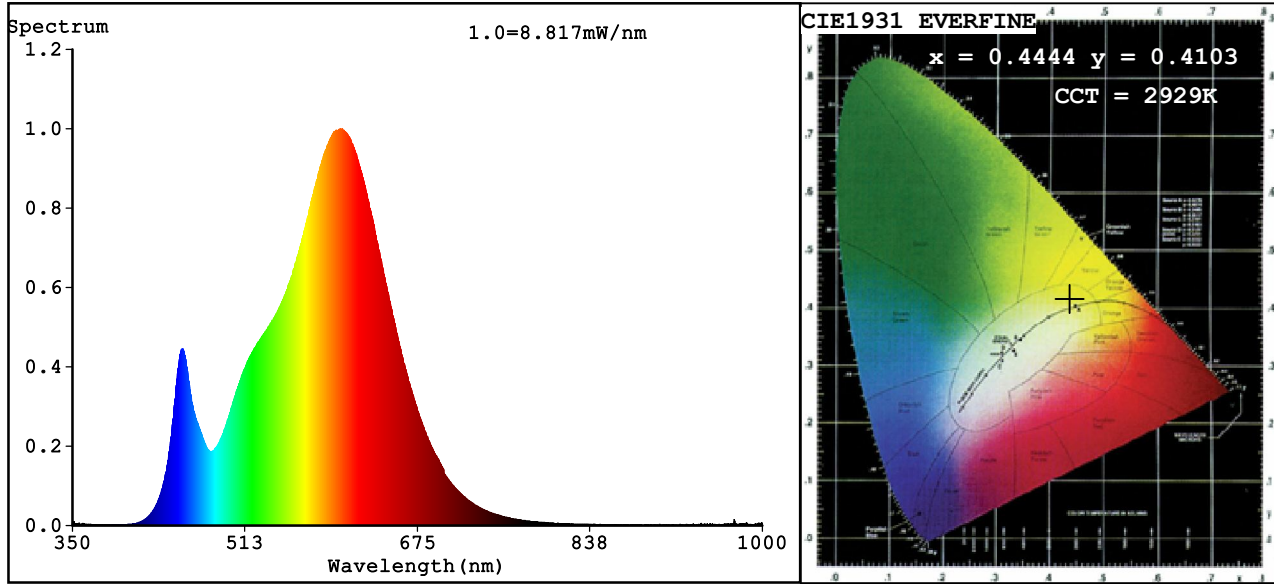
WHITE:ANSI_3000K

Status: Integral T = 103 ms Ip = 44932 (69%)

Model:LED GLOBE P45 FILAMENT/4W
Tester:Petya Marinova
Temperature:25.3Deg
Manufacturer:ELMARK

Number:99LED665
Date:2018-03-23 16:38
Humidity:65.0%
Remarks:017V055B_4288

Spectrum Test Report



Color Parameters:

Chromaticity Coordinate: $x=0.4444$ $y=0.4103$ $u'=0.2527$ $v'=0.5249$
 CCT=2929K (Duv=0.0015) Dominant WL:Ld =582.6nm Purity=56.5%
 Ratio:R=23.1% G=74.5% B=2.5%;; Peak WL:Lp=602.5nm FWHM=119.8nm
 Render Index:Ra=80.9
 R1 =79 R2 =90 R3 =96 R4 =78 R5 =79 R6 =89 R7 =81
 R8 =55 R9 =0 R10=79 R11=77 R12=70 R13=82 R14=98 R15=70

Photo Parameters:

Flux = 420.8 lm Eff. : 104.24 lm/W Fe = 1.258 W

Electrical parameters:

V = 229.95 V I = 0.03468 A P = 4.037 W PF = 0.5063

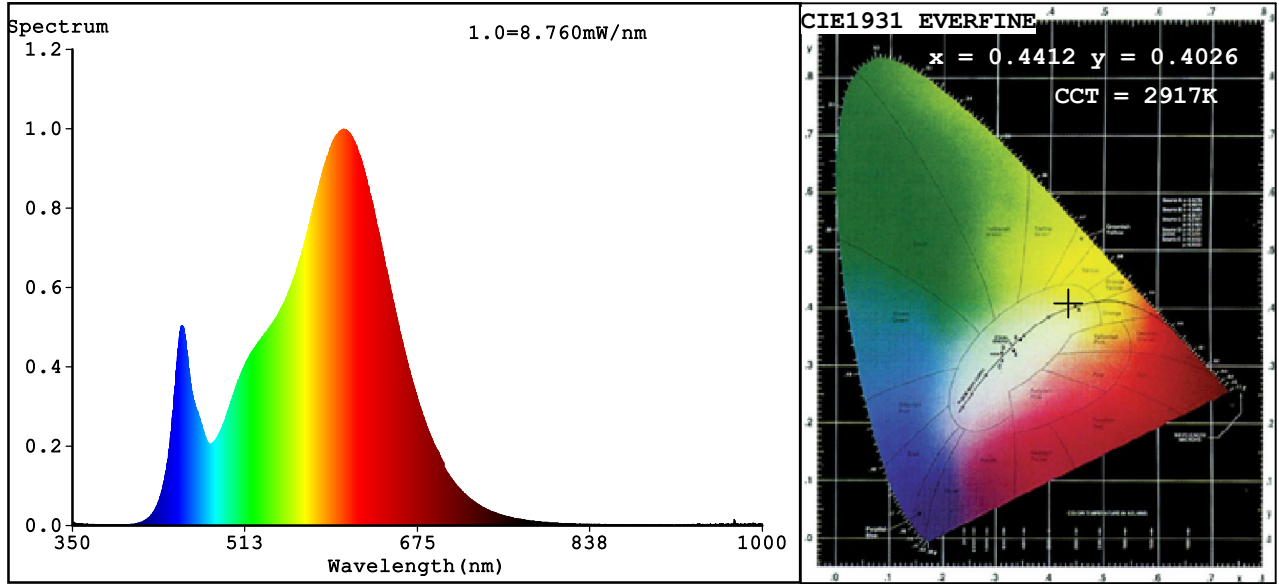
WHITE:ANSI_3000K

Status: Integral T = 103 ms Ip = 45819 (70%)

Model:LED GLOBE P45 FILAMENT/4W
 Tester:Petya Marinova
 Temperature:25.3Deg
 Manufacturer:ELMARK

Number:99LED665
 Date:2018-03-23 16:39
 Humidity:65.0%
 Remarks:017V055B_4288

Spectrum Test Report



Color Parameters:

Chromaticity Coordinate: $x=0.4412$ $y=0.4026$ / $u'=0.2540$ $v'=0.5214$
 CCT=2917K (Duv=-0.0012) Dominant WL: $\lambda_d = 583.6$ nm Purity=53.3%
 Ratio: R=23.9% G=73.4% B=2.7% ; Peak WL: $\lambda_p = 605.8$ nm FWHM=121.6nm
 Render Index: Ra=84.2
 R1 =84 R2 =94 R3 =94 R4 =82 R5 =84 R6 =93 R7 =82
 R8 =60 R9 =13 R10=86 R11=83 R12=77 R13=86 R14=98 R15=76

Photo Parameters:

Flux = 413.6 lm Eff. : 105.44 lm/W Fe = 1.280 W

Electrical parameters:

V = 229.96 V I = 0.03356 A P = 3.923 W PF = 0.5084

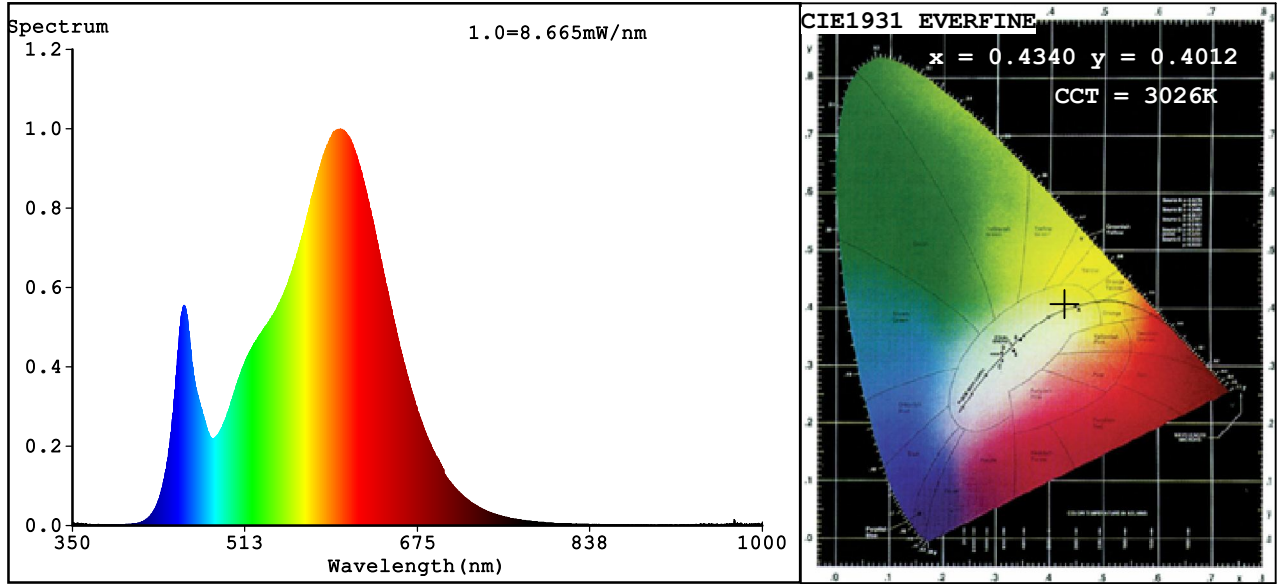
WHITE:ANSI_3000K

Status: Integral T = 103 ms Ip = 45434 (69%)

Model:LED GLOBE P45 FILAMENT/4W
 Tester:Petya Marinova
 Temperature:25.3Deg
 Manufacturer:ELMARK

Number:99LED665
 Date:2018-03-23 16:41
 Humidity:65.0%
 Remarks:017V055B_4288

Spectrum Test Report



Color Parameters:

Chromaticity Coordinate: $x=0.4340$ $y=0.4012$ $u'=0.2499$ $v'=0.5198$
 CCT=3026K(Duv=-0.0007) Dominant WL:Ld =583.0nm Purity=50.7%
 Ratio:R=22.7% G=74.4% B=2.8%;; Peak WL:Lp=602.5nm FWHM=122.8nm
 Render Index:Ra=82.0
 R1 =81 R2 =92 R3 =94 R4 =79 R5 =81 R6 =91 R7 =81
 R8 =57 R9 =3 R10=83 R11=78 R12=72 R13=84 R14=98 R15=73

Photo Parameters:

Flux = 419.2 lm Eff. : 105.57 lm/W Fe = 1.270 W

Electrical parameters:

V = 229.95 V I = 0.03386 A P = 3.971 W PF = 0.5100

WHITE:ANSI_3000K

Status: Integral T = 103 ms Ip = 45065 (69%)

Model:LED GLOBE P45 FILAMENT/4W
 Tester:Petya Marinova
 Temperature:25.3Deg
 Manufacturer:ELMARK

Number:99LED665
 Date:2018-03-23 16:43
 Humidity:65.0%
 Remarks:017V055B_4288